PROCEEDINGS

AND

TRANSACTIONS

OF

THE ROYAL SOCIETY

OF

CANADA

THIRD SERIES—VOLUME LIII

MEETING OF JUNE, 1959

OTTAWA

THE ROYAL SOCIETY OF CANADA

1959

NOTE

Volume LIII of the Proceedings and Transactions of the Royal Society of Canada (1959) consists of the Proceedings and the papers of Sections II, III, IV, and V *only*.

Section I has decided not to publish any papers in the 1959 Transactions.

Veuillez noter que le Tome LIII des Mémoires et comptes rendus de la Société royale du Canada (1959) comprend les Procès-verbaux et les Mémoires des Sections II, III, IV, et V *seulement*.

La Section I a décidé de ne pas publier de communications dans le volume de 1959.

TABLE OF CONTENTS

List of Officers of the Society 1
Committees Appointed for the Year 1959–60 2
List of Fellows 5
List of Corresponding Members 25
Awards of Chauveau, Flavelle, Henry Marshall Tory, Lorne Pierce, Tyrrell, Willet G. Miller Medals and Harrison Prize 26
List of Presidents 28
List of Presidents of Sections 28
Associated Organizations 29

Report of the Honorary Secretary for the Year 1958–59
Council Meetings 31
Minutes of the Seventy-Seventh Annual Meeting 32

Presentation of Medals
Médaille Pierre Chauveau: Harry Bernard 47
Flavelle Medal: Murray Llewellyn Barr 48
Lorne Pierce Medal: Philippe Panneton 50
Médaille Tyrrell: Arthur Maheux 50
Henry Marshall Tory Medal: Henry George Thode 52
Willet G. Miller Medal: Loris Shano Russell 53

Reports of Sections 55

APPENDICES

Appendix A
Presidential Address, "The Evolution of the English and French Languages in Canada," by Pierre Daviault 63

Appendix B
Biographical Sketches of Deceased Members
Arthur Beauchesne 75
Charles Camsell 79
Jean Chauvin 85
William Vernon Cone 89
George Vibert Douglas 93
Arthur Gibson 97
Claude Laurent Pierre Masson 101
William Everett McNeill 105
Richard Birnie Miller 111

Kenneth W. Neatby 117
John Kellock Robertson 123
Sidney Earle Smith 129
Osman James Walker 135

APPENDIX C
Titles and Abstracts of Papers Presented at the Annual Meeting . . 137

SECTION II

Adam Smith. By V. W. BLADEN, F.R.S.C. 1

Francis Hutcheson and the "Moral Sense" Theory. By A. H. JOHNSON, F.R.S.C. 11

Edmund Burke. By C. B. MACPHERSON, F.R.S.C. 19

Edward the Confessor in History. By T. J. OLESON, F.R.S.C. . . . 27

Archaeological Work on the North Shore of Lake Superior. By T. F. MCILWRAITH, F.R.S.C. 37

SECTION III

A Structure Theory of Bipartite Graphs of Finite Exterior Dimension. By A. L. DULMAGE and N. S. MENDELSOHN, F.R.S.C. 1

Similarities Over Fields of Characteristic Two. By PETER SCHERK, F.R.S.C. 15

Extensions of Wirtinger's Inequality. By PAUL R. BEESACK 21

Certain Properties of the Generalized Integral of a Finite Riemann Derivative. By C. KASSIMATIS 31

SECTION IV

Deformation of the Whitemud and Eastend Formations Near Claybank, Saskatchewan. By A. R. BYERS, F.R.S.C. 1

Evolutionary Trends Within Gastroplitan Ammonoids. By P. S. WARREN, F.R.S.C., and C. R. STELCK 13

Evolution of the Mississippian Lithostrotion mutabile-Lithostrotion whitneyi *Coral Group of the Southern Canadian Rockies.* By SAMUEL J. NELSON 21

Modern Soil Science (Pedology) in Relation to Geological and Allied Sciences. By H. C. MOSS 27

SECTION V

The Origin of the Metazoa. By J. R. NURSALL 1

The Evolution of the Chondrophora (Siphonophora-Disconanthae): New Evidence from Behavioural Studies. By G. O. MACKIE . . 7

The New Method of Alpha-Ray Microradiography Applied to the Study of Chick Cartilage. By LEONARD F. BÉLANGER, F.R.S.C., and B. B. MIGICOVSKY 21

The Significance of Plant Microfossils Found in Canadian Devonian Rocks. By NORMAN W. RADFORTH, F.R.S.C., and L. WILKINSON 29

Definitive Microfossils Pertinent to Physiographic Difference in Muskeg. By NORMAN W. RADFORTH, F.R.S.C., and LYNDA S. SUGUITAN 35

Volume LIII of the Proceed

Canada (1959) consists of the

III, IV, and V only.

Section I has decided not

Univer

NOTE:

roceedings and Transactions of the Royal Society of

of the Proceedings and the papers of Sections II,

d not to publish any papers in the 1959 Transactions.

University Microfilms, Inc.